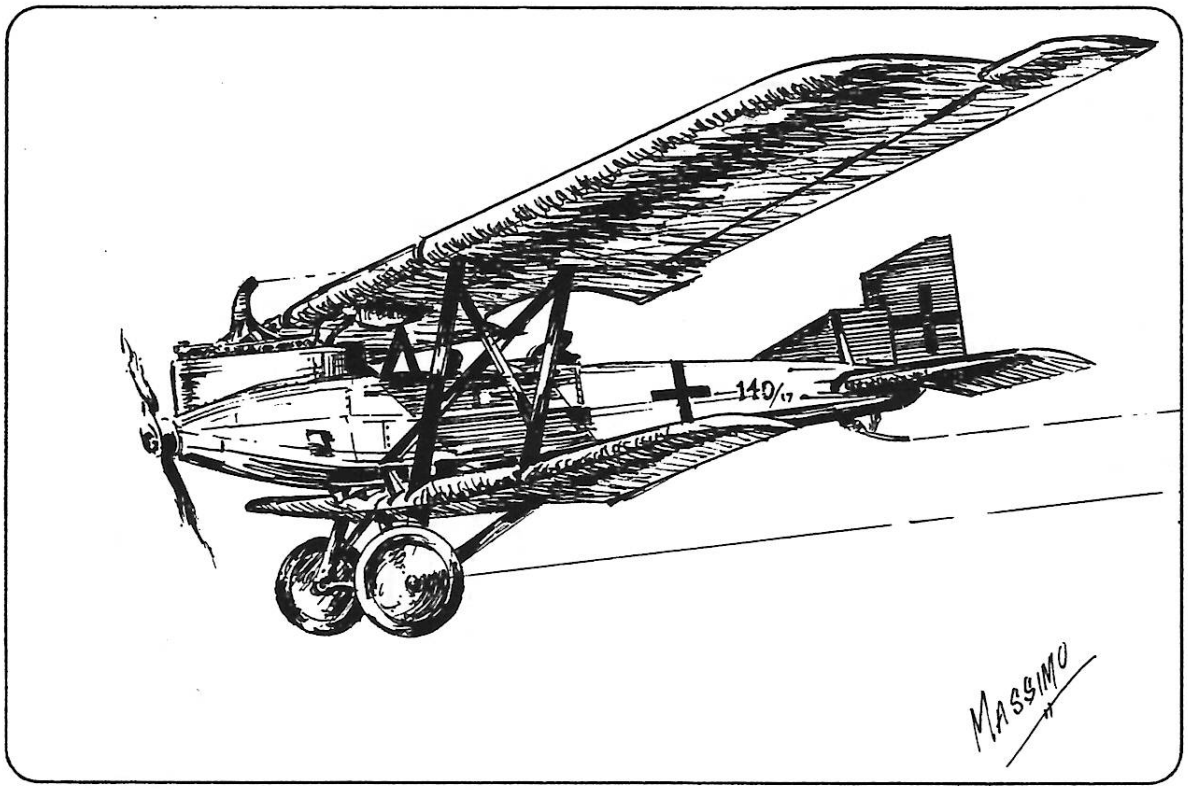
MAXFAX

Journal of the D. C. Maxecuters

. . . home of the dreaded POTOMAC SQUADRON of the Flying Aces Club

July - August 1993



1993 COMING ATTRACTIONS

- Jul. 10-11: FAC contest @ National Warplane Museum, Geneseo, N.Y.
- Aug. 15: Any scale bi-plane contest @ Comsat.
- Sep. 1-5 FAC/AMA contest @ Muncie, Indiana.
- Sep. 11: Maxecuter's Summer Fun-Fly @ Comsat 9am-5pm. AMA card required to fly.
- Sep. 18-19: Glastonbury Modelers FAC Contest @ Durham Fairgrounds, Durham, CT. Info: Cap'n "Never Ready Eddie" Novak 203.238.9066.
- Oct. 1-2 (tentative date): Kudzoo Squadron Friday evening splash-down, Saturday FAC contest, Fayetteville, N.C.

Annual College Park Air Fair - September 18 - 19

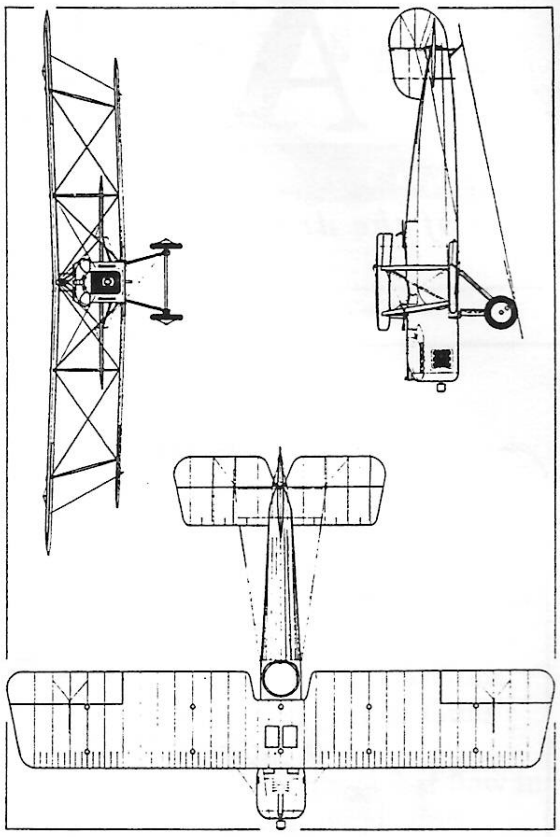
Stunt flying, barnstorming and wingwalkers, vintage aircraft, at the oldest continuosly operating airport. 6709 Cpl. Frank Scott Dr. College Park, Md. For information call (301) 864-5844. Free Admission.

The Editors of this issue of MAX-MAX are Bert Phillips and Bill Ceresa.

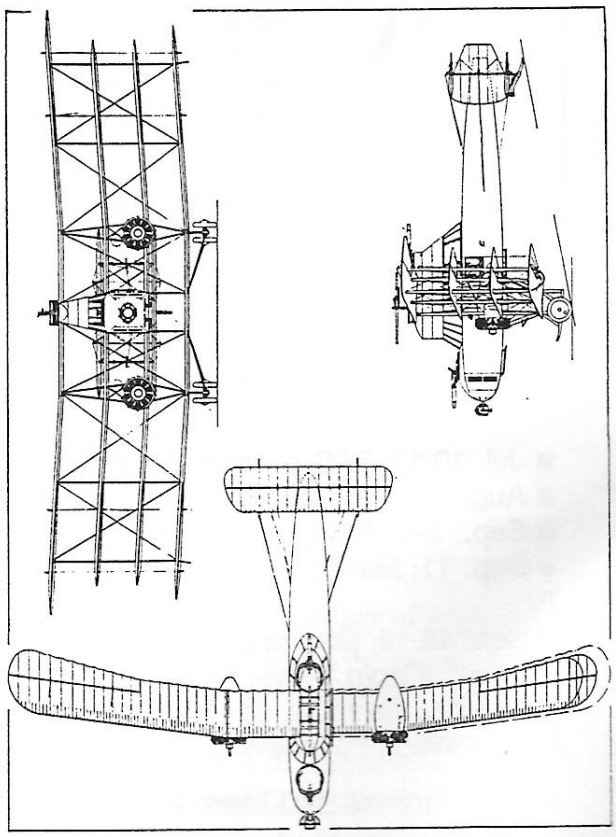
NOTE:
Please excuse any errors in this Newsletter such as spelling, bad punctuation, repetative words, etc. Neither Bert nor myself can type. I've done this project in the traditional hunt and peck style. This has led to numerous re-types of the text. After awhile I deemed this cruel and unusual punishment and said, **"THATS IT"!!!.**So as you read this Newsletter please mentally correct any errors. Thanks.

IN THIS ISSUE:

The following issue of MAX-FAX contains two full zize model plans which we hope will "whet" your appetite to start building. Our feature plan is John Houck's Jumbo Scale, **JUNKERS J-1** armoured WWI German biplane. It was the first biplane to be covered with corregated metal on the wings and tail surfaces, which became a "trade- mark" of JUNKERS for years to come. It is a great model and a very good flyer. The only surviving **JUNKER J-1 is** located at the **CANADIAN NATIONAL AERONAUTICAL MUSEUM** at Rockcliffe Air Station, North Ottawa, and has yet to be restored. The second plan is the **SPIRIT OF ST. LOUIS.** This model was designed and built by Bud Carson as the first "COCONUT SCALE" model, an event he originated. This plan has never been published before. Also included in this issue are some building tips by Claude Powell. Tom Schmitt provided us with another great photo page. So kick back, put your feet up, and enjoy this issue.... " Look up in the sky, its a bird, its a plane, its a DEE---CEE----MAX---EEE---CUU---TER"!!!!.



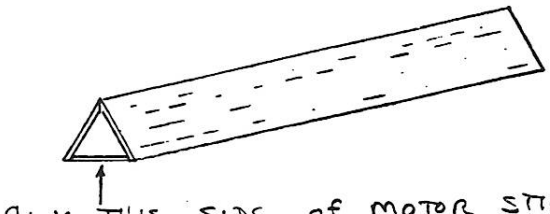
Vickers F.B.24C



Supermarine P.B.31E

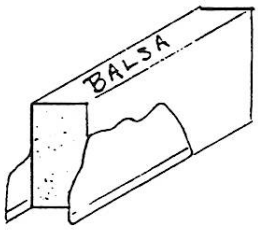
CONSTRUCTION TIPS BY CLAUDE POWELL

HANDY HINT #1: INSTEAD OF USING SOLID BALSA FOR A MOTOR STICK, MAKE A TRIANGULAR MOTOR STICK. IT'S MUCH MORE RIGID FOR THE SAME WEIGHT. USE 1/20" SHEET FOR A MEDIUM WEIGHT MODEL AND 1/32" SHEET FOR A LIGHT-WEIGHT MODEL. THE SIDES SHOULD BE APPROXIMATELY 1/4"-3/16" WIDE. EXPERIMENT!



GLUE THIS SIDE of MOTOR STICK TO SIDE of PROFILE MODEL

HANDY HINT #2: TO MAKE WING AND STAB TIPS FROM SHEET BALSA INSTEAD OF LAMINATING THEM, MAKE A TWO BLADE CUTTER AS SHOWN BELOW. THE BALSA BLOCK, BETWEEN THE TWO RAZOR BLADES, CAN BE ANY WIDTH YOU NEED (MINE IS 5/32" FOR THE PARTS NEEDED IN DIME SCALE MODELS). IF YOU BUILD FROM PLANS AND MUST COPY THE PARTS TO A SHEET OF BALSA, YOU ONLY NEED TO TRANSFER THE OUTSIDE EDGE. IF ONE BLADE FOLLOWS THE LINE, THE OTHER BLADE WILL AUTOMATICALLY CUT A CONSTANT-WIDTH PART. WHEN YOU SAND AWAY THE PEN OR PENCIL MARK THE PART WILL BECOME 1/8" WIDE INSTEAD OF THE 5/32" WIDE THAT YOU CUT.



CARSON'S COCONUTS

Before reading any further, stop and take a peek at photo number 4. There you see the first FAC COCONUT and it's originator, Professor Bud Carson. The photo was in MAX-FAX many years ago when Bud proposed and named the event. For some inexplicable reasons Bud's plan of his "Spirit" has not been published. We wish to rectify that omission in this issue. Bud has since built many additional COCONUTS but the "Spirit" is the one that will be remembered. It initiated the continuing popular events at the Patuxent River indoor contest. It also generated similar interest around the country culminating in the COCONUT events at the National Indoor Meets. COCONUT fever is catching and we have Bud to thank for it's popularity.

Bud's article "The Coconut Spirit" from an earlier MAX-FAX is reprinted in this issue. It presents Bud's techniques for building the "Spirit" and also some ideas concerning COCONUTS in general. We can add very little except some thoughts on the evolution of the rules at the Patuxent River contests. Several approaches were tried. Mooney and somewhat modified Mooney rules were used for a while but were found lacking especially considering the COCONUT is essentially a flying event and flight times are outstanding. FAC Rubber Scale rules were also tried briefly but they placed entirely too much emphasis on the aircraft's scale fidelity and too little emphasis on it's flying ability. We have settled on allowing a total of 30 scale points and no maximum on the flight time while adding flight seconds (best flight) as points for the total score. Since average flight times tend to run about 1 to 1 1/2 minutes this means the scale points are about 1/3 to 1/4 of the total score. This approach seems to satisfy Bud's original ideas concerning the event. We also do not deduct points for single covered wings and ask for a minimum weight of 1 ounce without motor. We have run both hand-launch and ROG events. The ROG is more interesting and will probably stick with it in the future, or possibly handicap those that are hand-launched. Obviously these rules are somewhat arbitrary but they reflect what seems to be best about the event. Regardless of ultimate rule development we are happy that Bud invented the idea and know that many modelers out there are having as much fun as the local guys. To see a COCONUT slowly flying at a scale speed around the indoor site is to see scale modeling at it's best!

THE COCONUT SPIRIT

Bud Carson

The interest generated by my 36" indoor scale Spirit of St. Louis at the November Pax River gala came as a pleasant surprise and I was quite pleased at all favorable comments it got. the model was designed for the sheer fun of it, and to this extent it was certainly successful, completing several dozen flawless flights to the delight of the crowd and the relief of the author, suffering nary a scratch or a blown motor. The idea came when I contemplated that magnificent flying site-something was needed that would fill up the room but do it in a survivable way.

Thus the Spirit was reincarnated in indoor trappings. As such it won't stand up to the rigors of outdoor flying, but on the hand , has proved remarkably resilient to the inevitable wall and rafter bashes that so often spell disaster to typical outdoor models when flown between four walls. During the initial trimming flights and before the correct amount of rudder ofset was established (which proved in the end to be far more than I would have thought necessary) the Spirit had its share of heart-stopping encounters with the local terrain with nothing more than a split prop blade to show for it, proving once again that low inertia indoor model "crashes" tend to be rather leisurely affairs.

I hope this example will encourage others to follow suit with their own versions, even though there are no official events for this class. In case there ever is, I have labled this category "coconut scale" in keeping with the familiar peanut and walnut scale categories, the coconut being the biggest nut of all, yours truly excepted. To help things along, I have put down some thoughts, realizing that the formidible Maxecuters are supurb modelers and need no instruction on basic technique.

1. For a first attempt, stick with the tried and true. I suggest a high-wing, externally braced configuration. Feel free to tinker with landing gear lenght, tail surface areas, and dihedral (all of which is allowed by FAC rules, incidentally) and make a working sketch or drawing before plunging into the actual construction.

2. Use Yoga, TM, or whatever suits to get yourself into an indoor mindset. Lightness not only spells endurance, it is the key to survivability; heavy models hit harder, and vice-versa. Select wood carefully for strength and lightness, and resist the urge (which can be quite overpowering at times) to add unnecessary structure. Don't get caught in the weight-growth tangle. When in doubt, scrimp, obeying the aeronautical engineer's credo: simplify, and add lightness. Be especially careful about tail weight, which can be a real killer. A needless gram in the tail may easily require three more in the nose, to balance it, wiping out as lot of the "lightness" that you have carefully "added" in the rest of the structure.

Remember that conventional models seem to have a lot of unproductive structure devoted to no other than to prevent warps, collapsed wing ribs, etc. caused by tissue tension. Since you won't be shrinking the tissue on flight surfaces, they can be made lighter than you are used to. The wings on the Spirit had only twelve 1/32" ribs and the trailing edge was 1/16" square.

3. Take full advantage of any bracing that appears on the prototype. The wings on the Spirit were very tender when framed up and downright floppy when covered, which meant that they were about right. When the struts were added, the wings became stiff enough to take the flight loads, but

still retained enough resilience to survive a cartwheel without damage (try that with your 15 lb. RC scale job !)

4. Fashion bulky items such as wheels, dummy engines, nose blocks, etc. from foam. This not only saves weight but lowers their inertia so they remain attached during close encounters with immoveable objects. If the airplane is very light and the wheels are too, the whole landing gear assembly can be glued on to the lower longerons without benefit of weight-enhancing piano wire reinforcements. Coat wheels, etc. with Elmer's or Titebond to give them dent resistance, strength, and a good base for sanding and finishing.

5. As for covering and finishing: all flight surfaces on the Spirit were single-covered with white paper that had been pre-sprayed with silver Rustoleum. The celebrated N-C-211 registration number was applied to the paper prior to covering using a large stencil coated with spray adesive, and sprayed black. The fuselage was covered and shrunk conventionally, and later sprayed directly without benefit of clear dope. As a result, I don't think there is more than a gram of paint on this model, which grossed out at just under 30 grams. Of course, tissue, magic markers, etc. can all be used, depending on the model. A light coat of clear acrylic on the raw paper will retard shrinkage and subsequent warping of the flying surfaces as humidity varies over time.

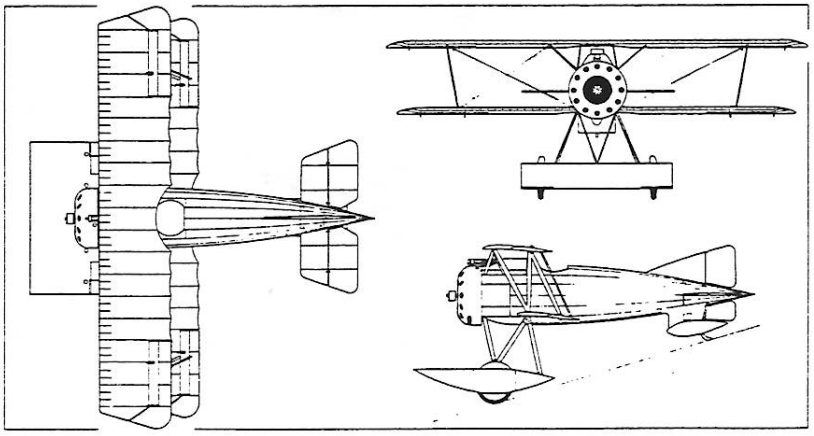
6. After much agonizing, I finally decided to attach the wings on the Spirit permanently since there seemed to be no way of maintaining rigidity with a detachable wing. This has worked out well, and losing trim each time the wing is removed is of no concern.

Otherwise, a model of this type goes together quickly, and is well worth a try. I hope to see the "sky" blackened with coconuts next Spring when we return to Pax for another fun-packed day. Who will be the first to build a coconut trimotor pusher canard? Anyone for a mass launch?

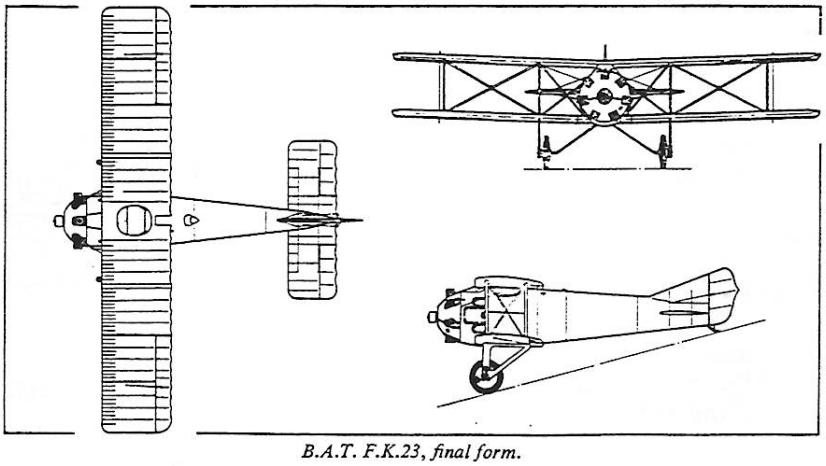
Bl1C 11/11/86

PHOTO PAGES

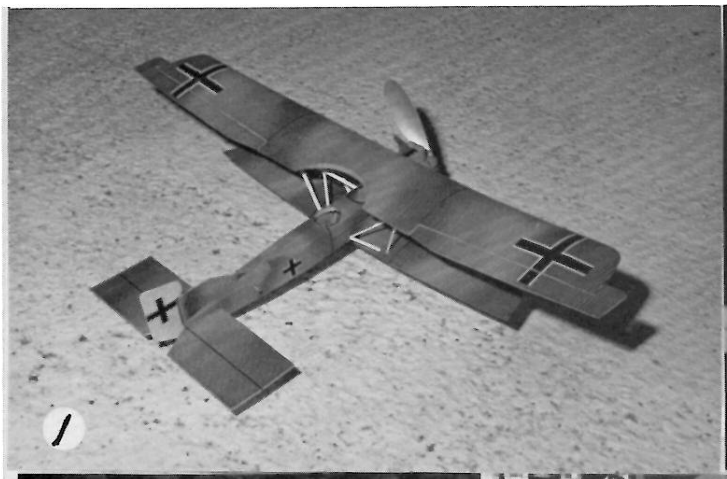
1. John Houck's magnificent Junkers is one of the featured plans in this issue. It is a very impressive and realistic flying machine.
2. Doug Buchanan's Martin is seen in action at Patuxent River.
3. Remember Dudley Prisel, one of our outstanding scale builders and flyers a few years ago. We have Dudley to thank for the great door prizes at the recent Patuxent River contest.
4. We have been remiss in publishing plans for the grandfather of COCONUTS, Bud Carson's "Spirit of St. Louis". They have been lanquishing in our archives for several years. Please see Bud's thoughts and some other ideas concerning COCONUTS in this issue.
5. Bill Winter's Commander in action. Build one of these and treat yourself to some great fun flying. Remember, it is eligible for our old time rubber contests!
6. Bert Phillip's Sopwith Tripe has turned out to be a great flyer after working out a few kinks and a few deft placements of tabs.
7. Two aircraft showed at Sherwood for the Seaplane Contest. Here Don Srull releases his Vagabond on the gym floor.
8. Frank Rowsome also brought a seaplane, the Martin torpedo plane, seen here during it's takeoff run.
9. Here is Don's Vagabond on a flyby during one of it's many successful flights.
10. Frank's aircraft looked and flew like a ruptured duck with it's exaggerated dihedral. It did takeoff and get good flight times but we do not believe it would garner the necessary "40" points in a mass launch event.
11. Russ Sandusky at the Pax River contest with his NO-CAL P-51 racer.



Morane-Saulnier Type AFH



B.A.T. F.K.23, final form.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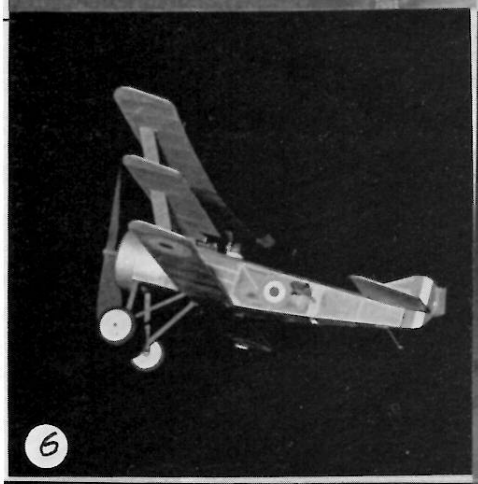
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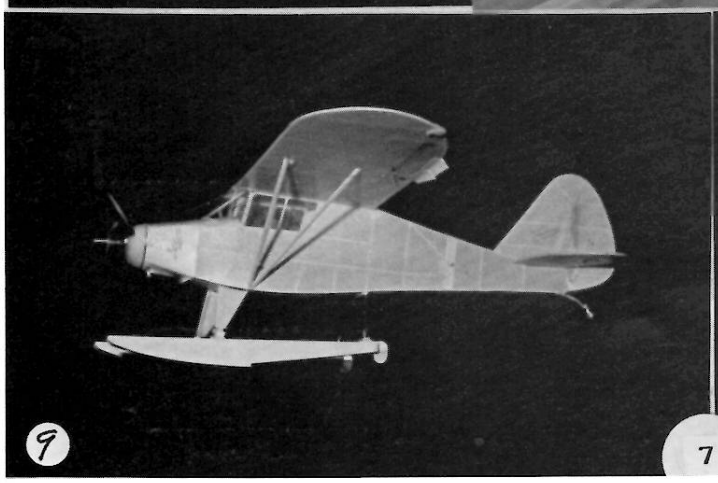
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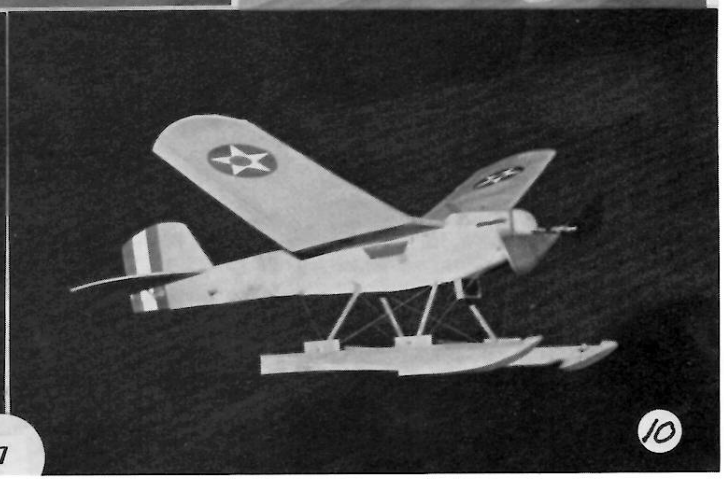
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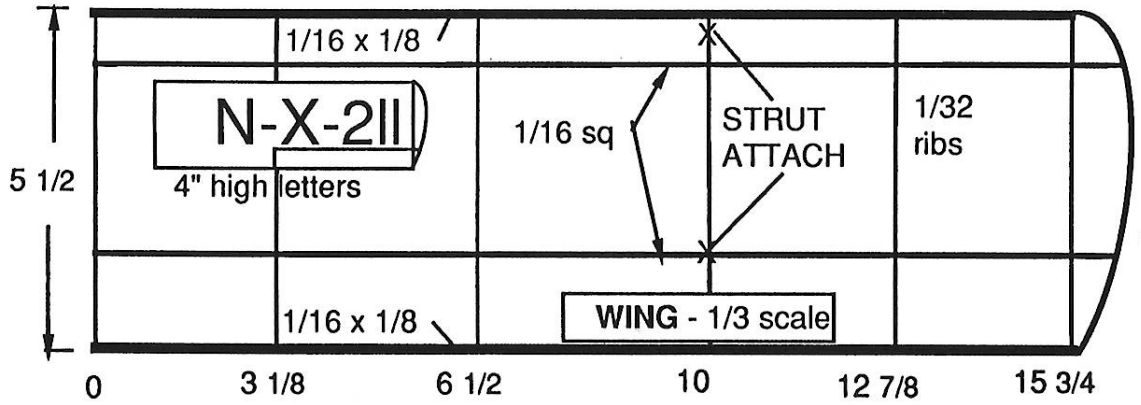
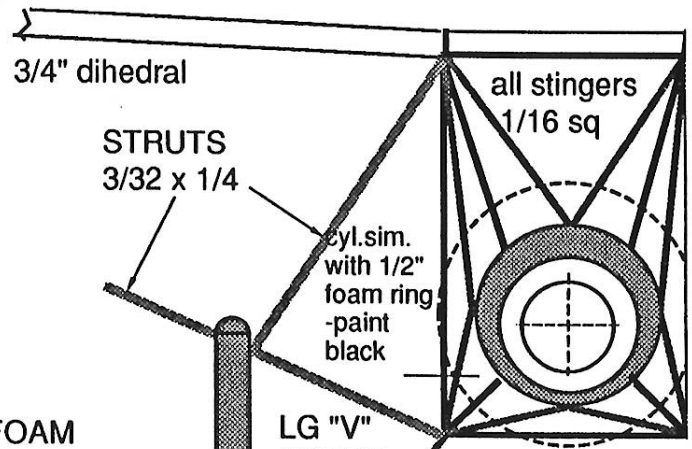
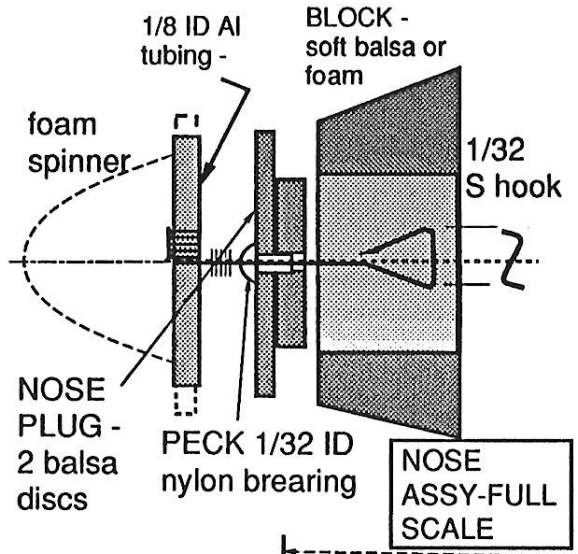


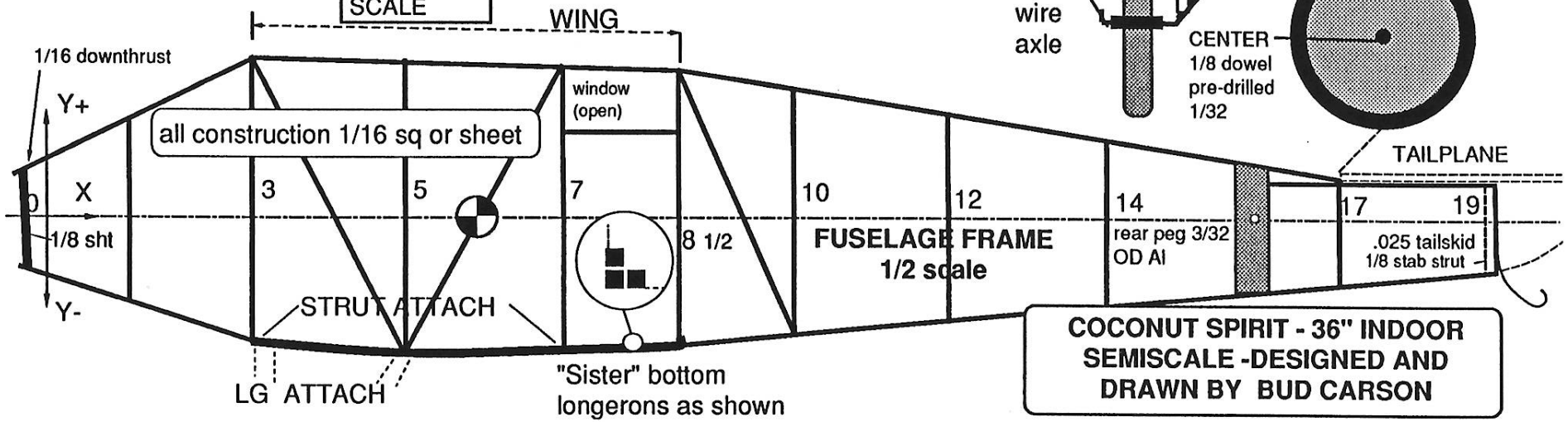
COVER WING,STAB TOP ONLY with tissue pre-sprayed silver. DO NOT SHRINK. Fuse. is covered, shrunk, & sprayed one light coat of silver



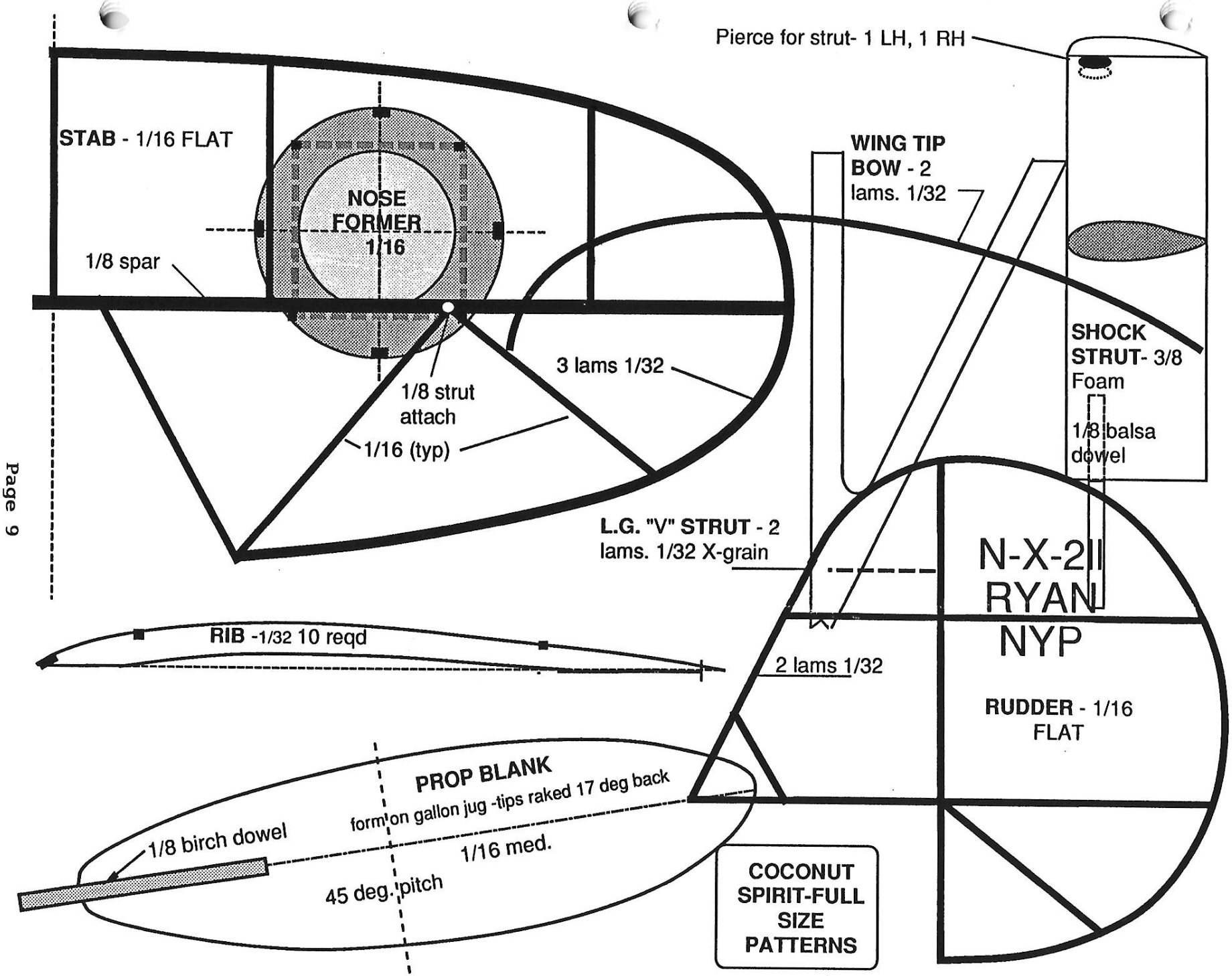


FUSE. OFFSETS, OUTSIDE DIMENSIONS, in.

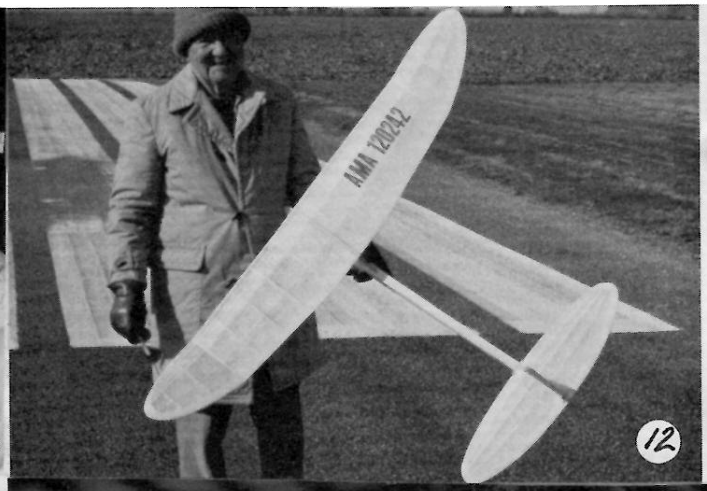
X	Y+	Y-	Width
0	11/16	11/16	1 3/8
3	2 1/16	1 5/8	2 5/8
5	-	1 3/4	"
8.5	1 7/8	1 5/8	"
12	1 3/8	1 3/8	2
17	9/16	-	3/4
19	1/2	3/4	1/8



COCONUT SPIRIT - 36" INDOOR SEMISCALE -DESIGNED AND DRAWN BY BUD CARSON


Pierce for strut- 1 LH, 1 RH
STAB - 1/16 FLAT
NOSE FORMER 1/16
1/8 spar
WING TIP BOW - 2 lams. 1/32
SHOCK STRUT- 3/8 Foam
1/8 balsa dowel
3 lams 1/32
1/8 strut attach
1/16 (typ)
L.G. "V" STRUT - 2 lams. 1/32 X-grain
N-X-2II
RYAN
NYP
RIB -1/32 10 reqd
2 lams 1/32
RUDDER - 1/16 FLAT
PROP BLANK
form on gallon jug -tips raked 17 deg back
1/8 birch dowel
1/16 med.
45 deg. pitch
COCONUT SPIRIT-FULL SIZE PATTERNS


1



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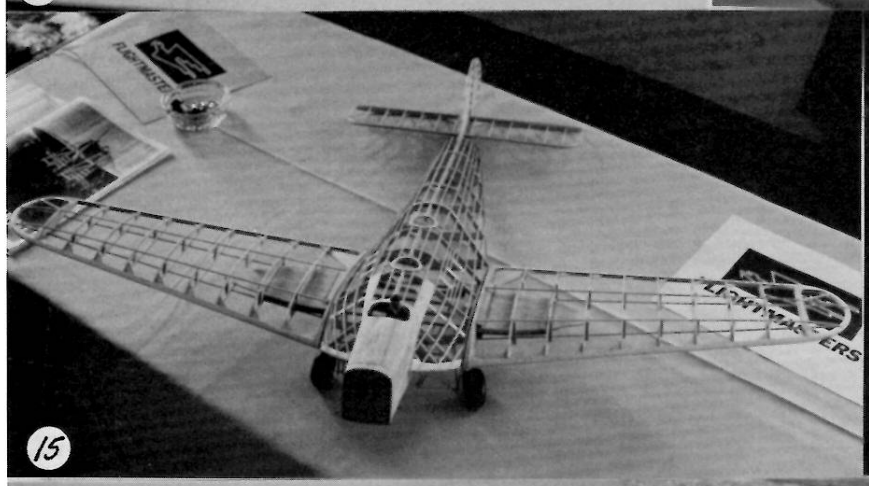
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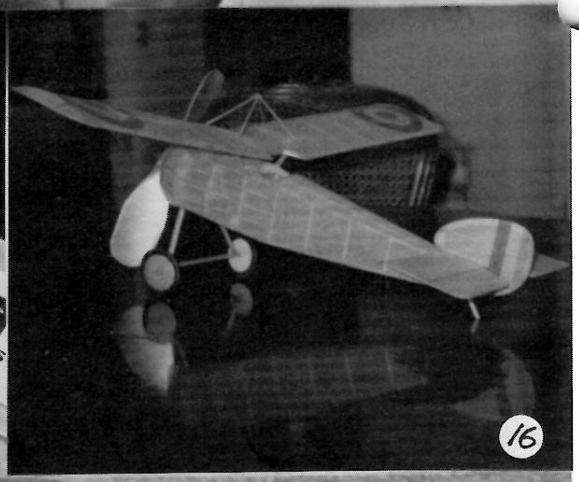
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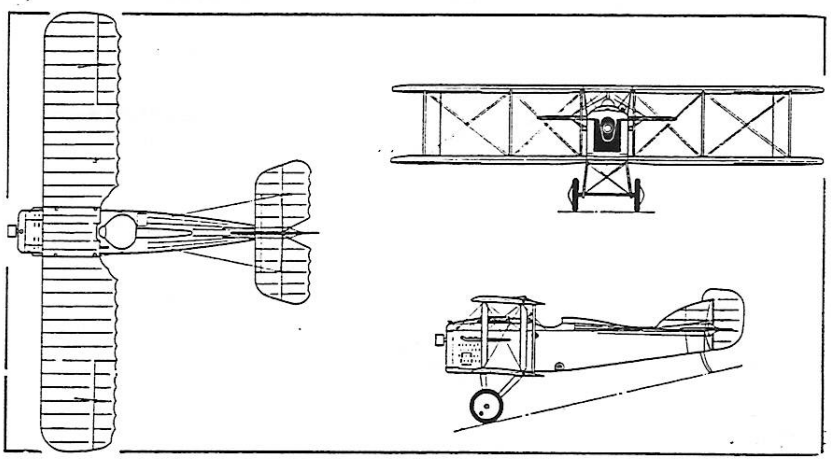
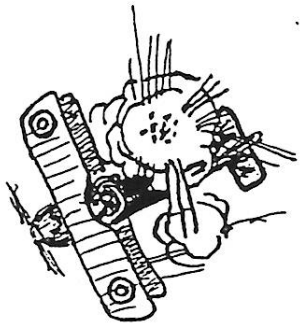
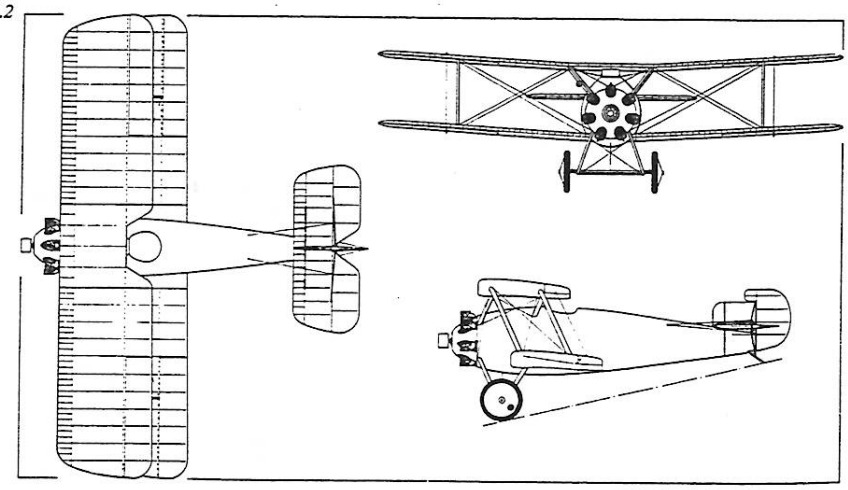
OUR READER'S PHOTOS

12. Our good friend Otto Klein is seen here with his Electric contest aircraft at the Herman, Missouri International Airport.
13. George Nunez of Miami, Florida builds and flys some beautiful scale aircraft. Take a look at his PISTACHIO version of the Nieuport-Delage 42.
14. A photo of George with his Hanriot HD-1.
15. Tony Naccarato's photo of a Westland Dreadnought at a recent Flightmaster's contest. Do not know who built this but Dave Stott's plan of the aircraft is in the FAC plan book. It is an interesting and unusual aircraft; the only original crashed on takeoff. Terry Pittman provided the photo.
16. Charlie Roth sent this photo of his nifty Sopwith Swallow.
17. Jiro Sugimoto sent this great photo of his PEANUT F4U from Japan.
18. Here is Al Lidberg's photo of his latest plan offering for the "Texas Temple Monoplane", a Golden Age aircraft with ATC # 45. The B&W copy does not do it justice. Al's original print showed the colorful red and silver color scheme. The model is 1" scale JUMBO size aircraft and the plan is terrific like all of Al's plans. Al will sell you the plan package (Instructions, large 3-view, plan, color decal set with instrument panel, TT logo, and N987N license numbers for rudder, plus Xeroxed B&W copy of full-size aircraft photos) for $8.00 plus 20% postage for a total of $9.60. A color (Canon laser copy) print of photos of the full size aircraft showing overall color and marking scheme, plus closeups of the logo and instrument panel is available for $4.00 plus $0.80 postage. Another $1.50 will bring Al's 16 page illustrated catalog of his other great plans. Al's address is: A. A. Lidberg, Model Plan Service, 614 E. Fordham, Tempe, Arizona 85283. His phone number is 601-730-9180 (evenings and weekends).





Mann Egerton H.2



Sopwith Snail (monocoque fuselage).

Old-Timer Contest @ Comsat - May 30, 1993

By G. J. Paisley

We had good weather and a respectful turnout for the Old Timer Mini-contest. A total of fourteen flights were flown by nine contestants.

Steve Hales drove all the way up from Fredericksburg, Virginia and flew a beautiful pristine Sparky, which finished second in the all old timers over 30" wingspan event. We, of course were flying FAC rules and had to ask him to fix his folding prop to be ridged, or he might have taken first.

Two Maxecuters (of the Dreaded Potomac Squadron of the FAC) earned their Blue Max at this meet by recording their 16th Kanone.

Three Cheers and a **Well Done** go to our old-time senior member, **Rolf Gregory,** and our Club Treasurer, **Frank Rowsome.**

Events Flown

FAC Moth

First Place - Rolf Gregory - 3 entries

Under 30" Wingspan

First Place - Scott Paisley - 7 entries

Commander

First Place - Jerry Paisley - 4 entries

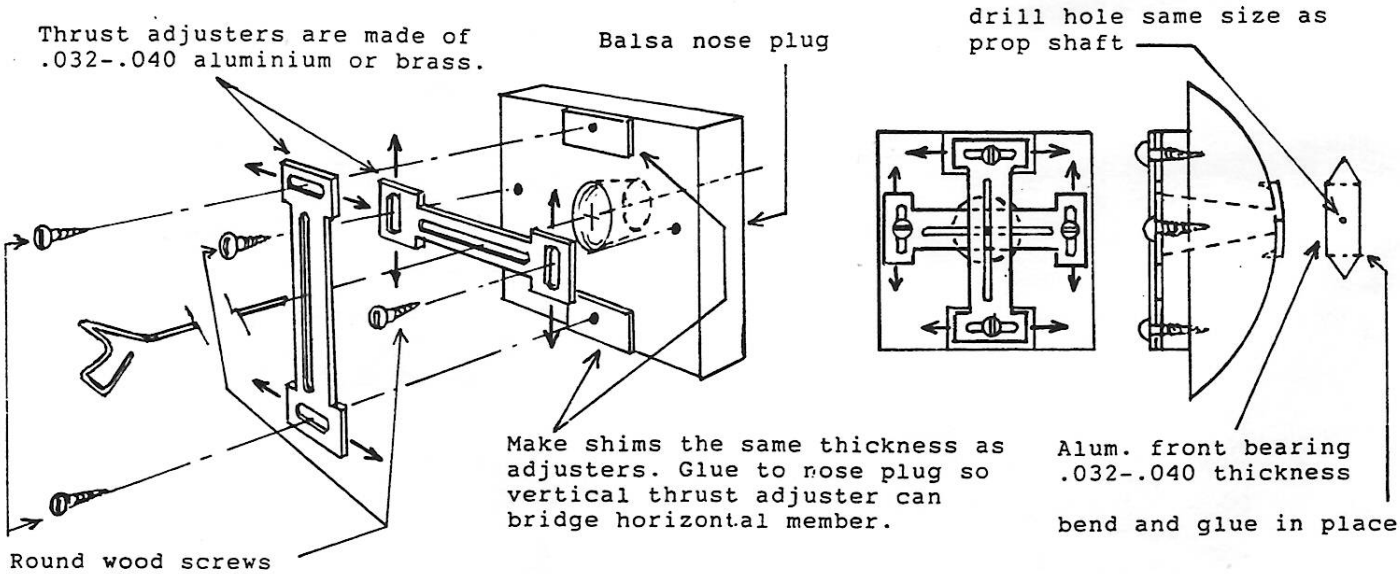
Over 30" Wingspan

First Place - Frank Rowsome - 3 entries

PRECISION THRUST ADJUSTER "THING".

Designed by **Bert Phillips**

The following Thrust Adjuster is the same as the one which appeared in the March-April issue of MAX-FAX with variations which allow for precision adjustment of either up or down thrust or right or left thrust independent of one another, thus giving precise corrections. All steps for making this variation are shown in the following drawings. All other steps are the same as is in the **C.A.V.U.** article by Rolf Gregory. If you have any questions write to Bert Phillips, 1709 Crofton Parkway, Crofton, Maryland 21114.



Slots in both horizontal and vertical thrust adjusters are made the size of the piano wire used for the prop shaft,1/32", 1/16", etc. Slots in the ends of the thrust adjusters are made large enough so screws can be loosened and either vertical or horizontal adjusters can be moved without bothering the other adjustment.

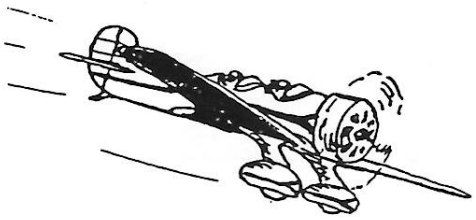
THE FLYING TANK

The JUNKERS J-1 was the only one Hugo Junkers all metal World War One period designs with two wings. Junkers felt he had demonstrated the superiority of the monoplane. The German High Command did not agree and ordered him to design an armoured biplane to perform various ground support duties.

A big heavy airplane that was heavy to handle in the air and required long take off and landing runs - factors which earned it another nickname, Mobelwagen (Furniture Van). The crews, however, liked it for its strength and the protection of the 5 mm armoured shell which enclosed the engine and crew. The shell alone weighed over 1000 pounds.

The J-1 was one of the best of its type and performed a wide variety of duties. It was armed and equipped as required. It was mainly used for infantry contact-patrols and artillery observation. Some examples mounted one or two forward firing guns mounted under the engine decking and a single ring mounted gun in the rear cockpit. Some were fitted with wireless and or photographic equipment with some or all of the armament omitted. Some early versions had two down and forward firing machine guns in the rear cockpit for ground attack and trench strafing, but were soon abandoned because they were difficult to aim at low level and high speed. Often the J-1's would drop food and ammo supplies to their own forward troops in the course of a mission.

The J-1 was technically interesting as the first German armoued airplane and the first to have the corrugated metal skin on the wing and tail surfaces; a "trade mark" of their designs for the next two decades.



JUNKER J1 CONSTRUCTION NOTES BY JOHN HOUCK-

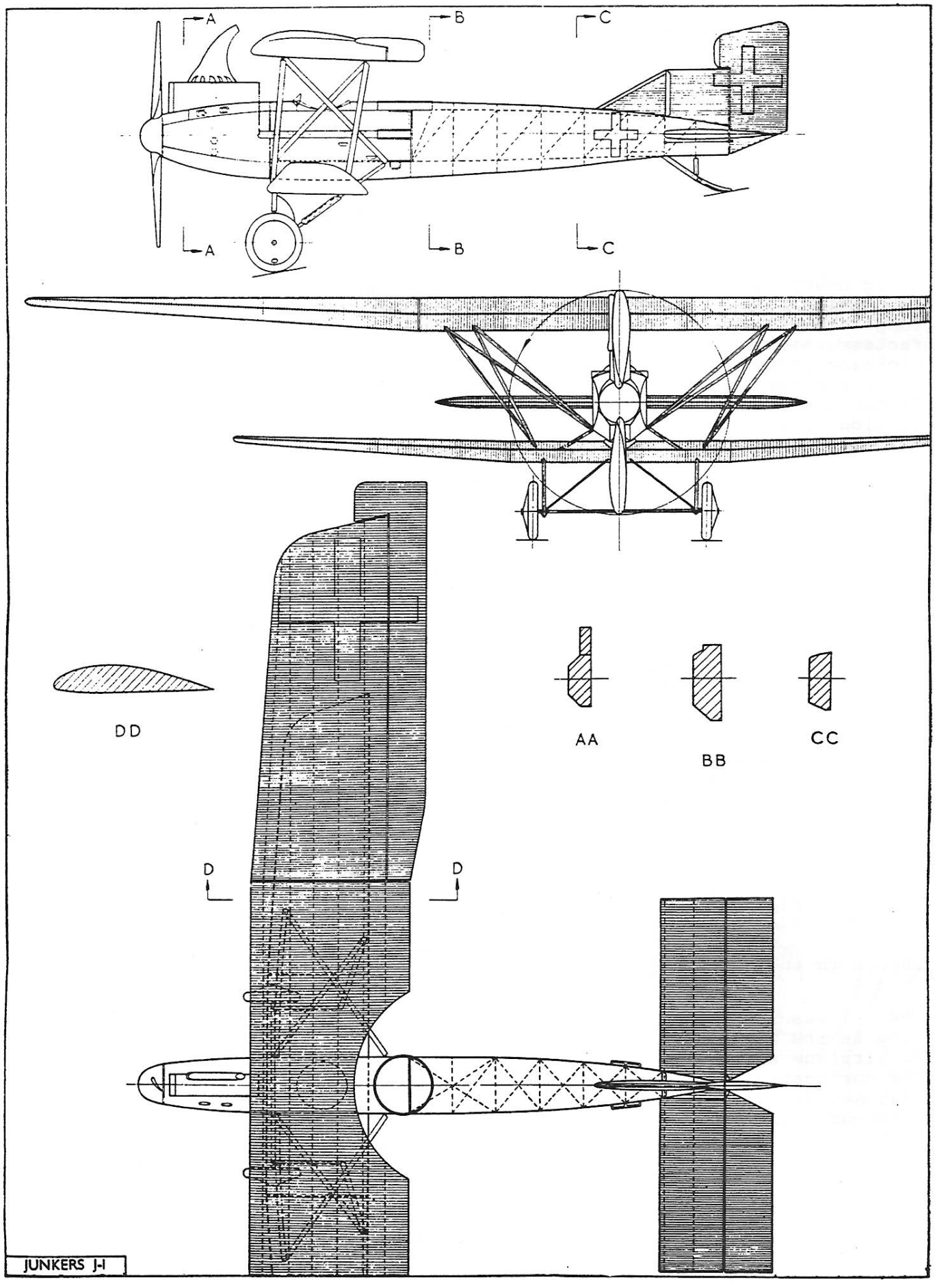
A few words on the model-

I think this model qualifies as a Jumbo (30" biplane). In any case, the cross section of the body is quite small for a wing this size, so build light. There is not enough space inside for a large motor.

The body is planked with sheet balsa where the lower wing attaches to it. The center of the lower wing is also planked. The wing planking is cut away to allow the body to nest into it. Prepare this wing to body joint but do not assemble. Because there are no cabain struts mounting the upper wing to the top of the body, position- the upper wing is somewhat of a challenge. Build a jig to hold the upper and lower wings relative to each other and assemble them using the four main vertical struts. (Note that these struts, front and rear, are not parallel so that the crossing struts that connect the top of the vertical struts to the lower body will not intersect). The two wings assembled by the four main struts are now mounted to the body and then the rest of the struts can be added.

Covering-

Japanese tissue is used on the model. After covering the unassembled parts are coated with one light coat of dope. Wings, body, and tail are painted and marked before assembly. Camoflage patterns are sprayed with Pactra Acryic Enamel. This gives an opaque finish with one light coat. Simulated corrugations were drawn with waterproof marking pen after painting but before assembly. For the flat surfaces - tail and bottom of wing- make a tool of wood like a "T" Square. The long leg being long enough to lay along the front center section of the top wing while the cross piece is long enough to reach the trailing edge of the wingtip. You can use a piece of yard stick with correct size graduations for the long leg to aid in keeping lines evenly spaced. For top surface of the wing use soft cardboard or file folder for cross piece and bend to airfoil shape.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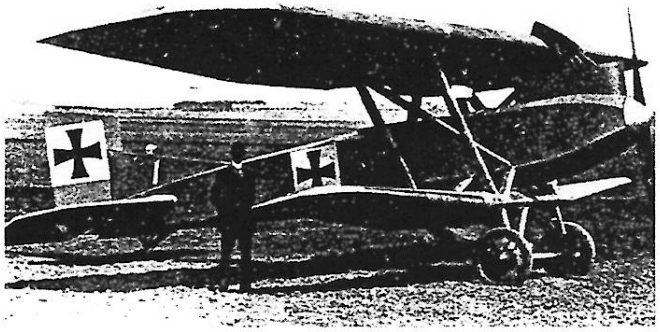
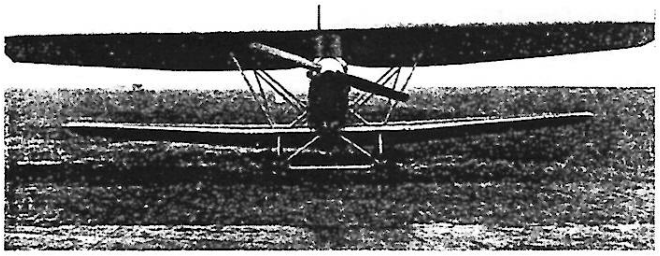
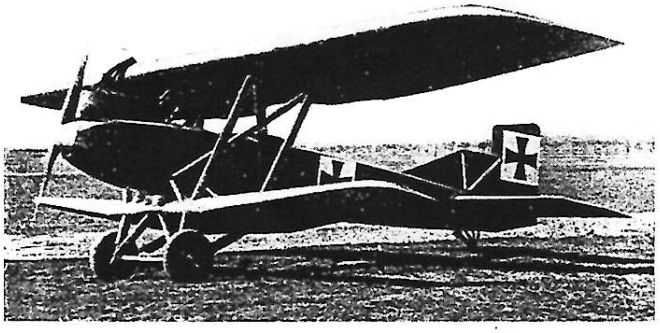
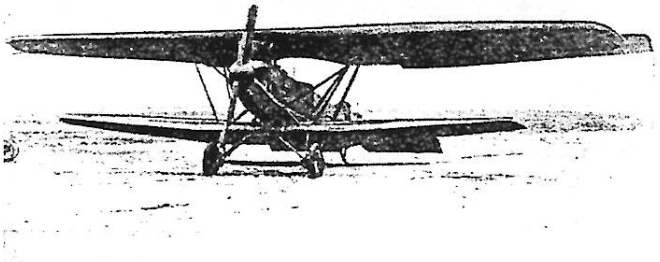
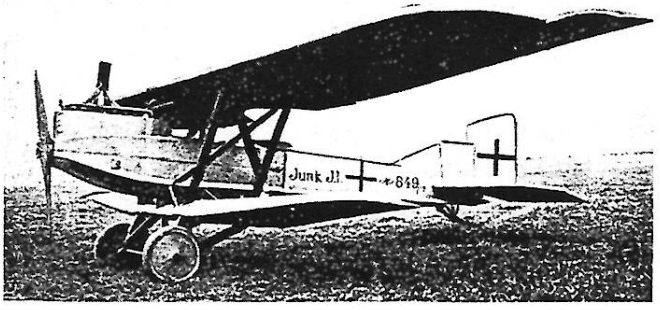
JUNKERS J-I



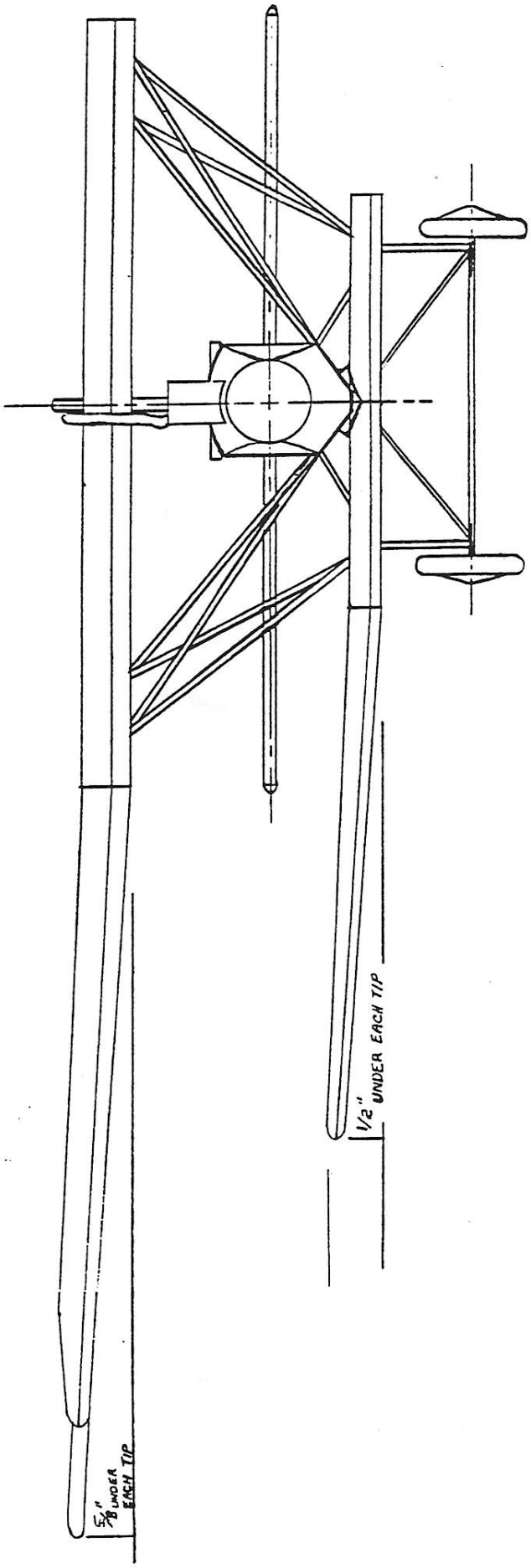








FRONT VIEW OF JOHN HOUCK'S JUNKERS J-1 SHOWING DIHEDRAL



D. C. Maxecuters 1993 Summer Fun Fly
Saturday, 11 September - 9 a.m. to 5 p.m.

Events

F.A.C. Scale:	Judging starts at 11:00 a.m. Qualifying flight is not required except to post static scores.
F.A.C. Power:	Same as above.
Jumbo Scale:	Same as above. (36" wingspan monoplanes - 30" biplanes)
Hand-Launch Glider:	AMA Rules
Embryo:	F. A. C. Rules

Mass Launches - Single Sortie - Last One Down Wins.

12:30 pm - Bill Winters Salute: One design - 1933 Construct-a-plane Company "Commander" by: Bill Winter- Published in Jan - Feb 1993 Max-Fax.

1:00 pm - Modern Civilian Production: Any non-military aircraft (1943 - present)

1:30 pm - Racers: One event for all racers including international aerobatic aircraft.

Mass Launch - Multi Sortie

2:00 pm - World War I - Combat WW I biplane with Markings, Rigging, & Guns

3:00 pm - World War II - Combat WWII Aircraft with Markings Rigging & Guns

4:00 pm - Golden Age - Non-military aircraft (1920 thru 1942)

4:45 pm - Trans-Comsat speed and Navigation Event. - Any scale aircraft that flew in any of the above events.

NOTE: Your Dues Are Due 

CLUB OFFICERS

President	Jerry Paisley 20 Clearwater Ct. Damascus, MD 20872
Secretary	Terry Pittman 7863 Colonial Vil. Row Annandale, VA 22003
Treasurer	Frank Rowsome 10904 Bellehaven Rd. Damascus, MD 20872

MEETINGS The D.C.Maxecuters hold meetings on the first Tuesday of every month at the College Park Airport, the oldest operating airport in the U.S.

MEMBERSHIP Dues for membership in the D.C.MAXECUTERS is $15 per year for residents of the USA, Canada, and Mexico, and $25 for all other countries. Your mailing label indicates the year and month of the last issue of your current membership. A red "X" in the box above is a reminder that your dues are due. Send a check, payable to the "D.C. MAXECUTERS", to the treasurer.

JUNKERS J-I

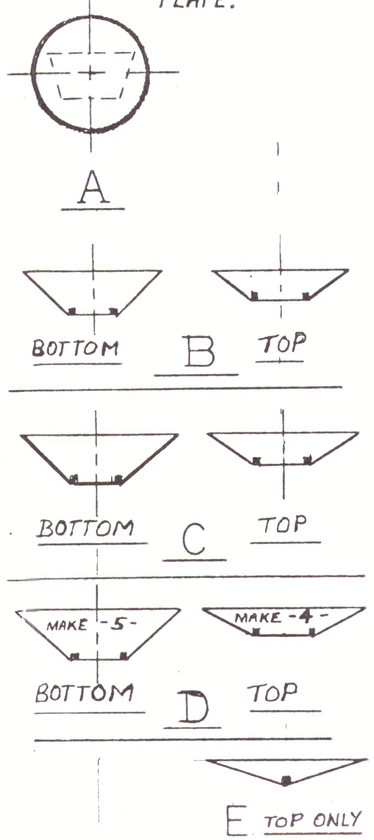
FLYING TANK OR
MÖBELWAGEN
(FURNITURE VAN)
OBSERVATION AND
GROUND ATTACK PLANE

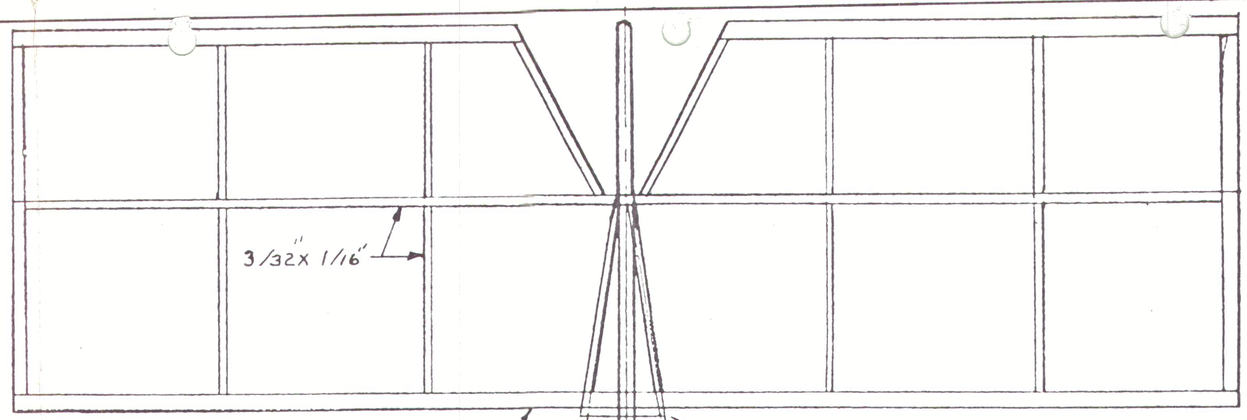
30.5" SPAN
BY JOHN HOUCK
12-91

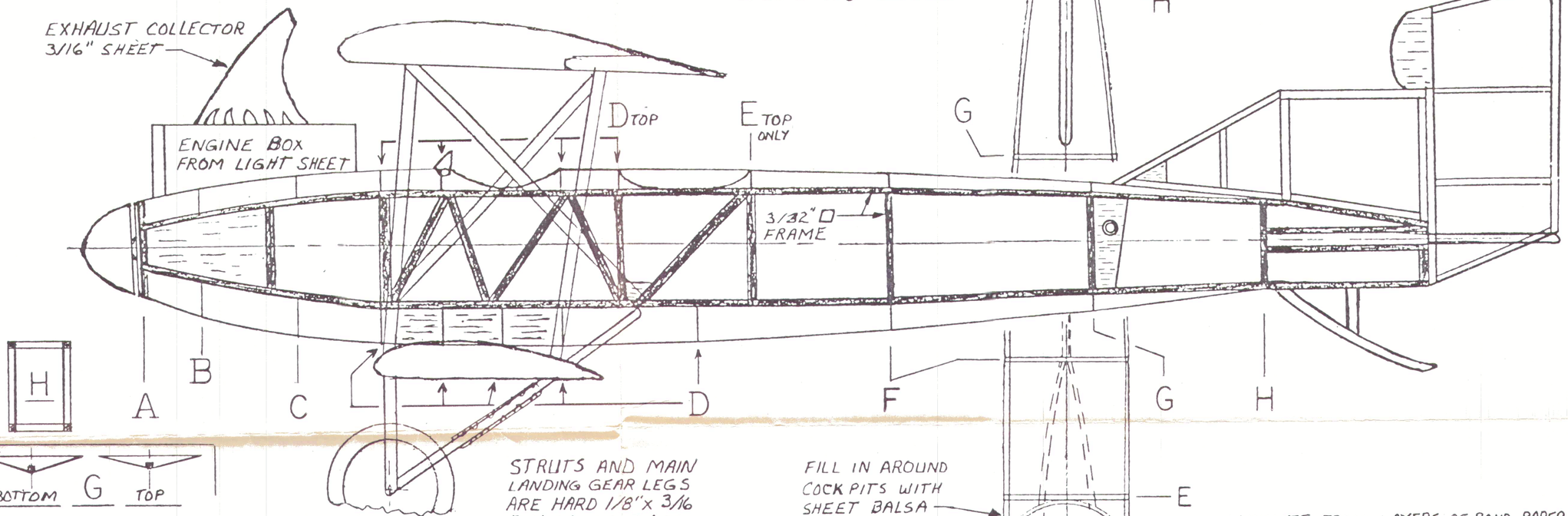
REF.
GERMAN WAR BIRDS BY MUNSON

FLYING ACES
APRIL 1939

1/8 OR 3/32 HARD BALSA FORMER AND 1/16 PLY THRUST BUTTON PLATE.

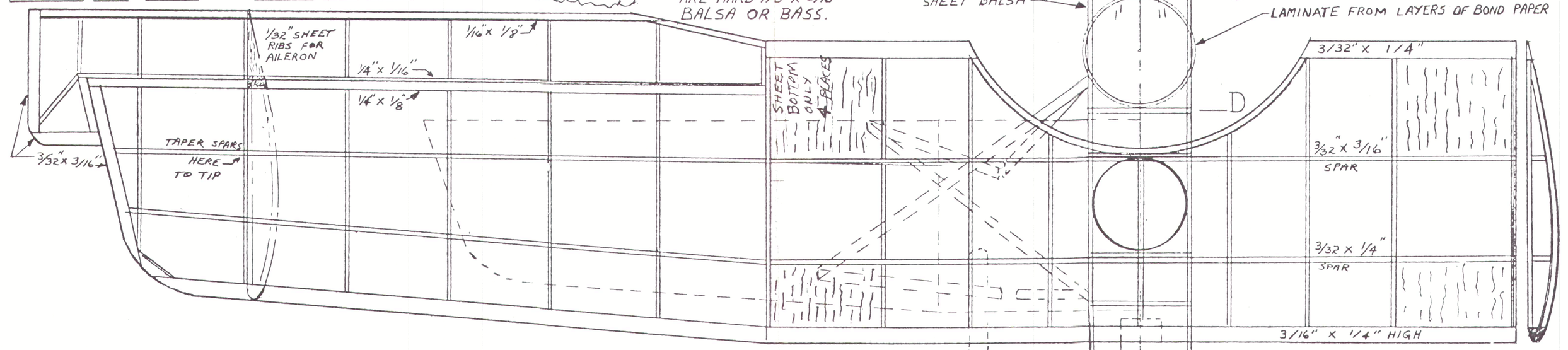


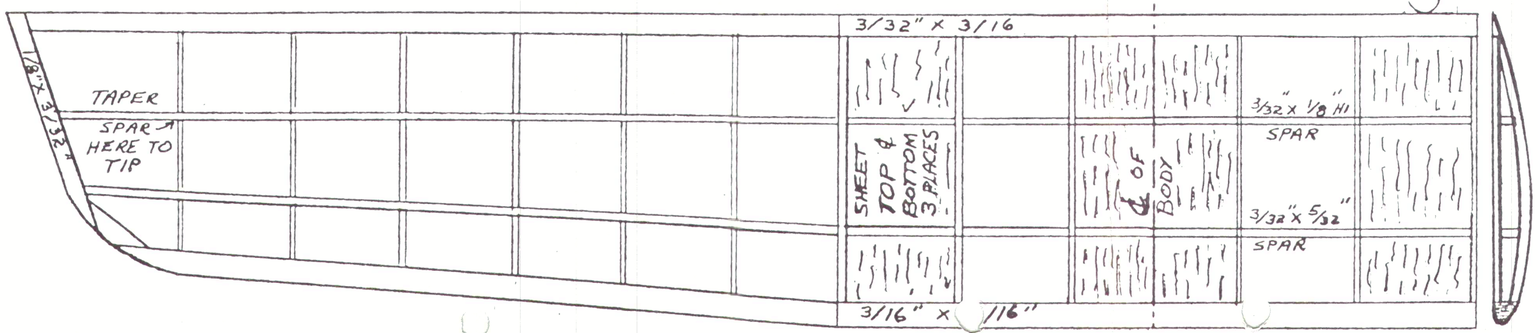




STRUTS AND MAIN LANDING GEAR LEGS ARE HARD 1/8" x 3/16 BALSA OR BASS.

FILL IN AROUND COCK PITS WITH SHEET BALSA





NOTE -
CUT AWAY SHEETING ON TOP OF LOWER WING CENTER SECTION TO FIT AROUND SHEETED PART OF LOWER BODY.

D.C. MAXECUTERS